## LBNL Ergonomics Resources

**New Hire** or JHA trigger for Ergo **Training?** 

EHS 59 Ergo Self-assess for **Computer Users** 

A-Z Index >> Ergo Self-assessment for Computer Users

**EHS62 WorkSmart** 

(material handling) **EH&S Training** Website >> Monthly Training Schedules For schedule and sign-up contact **Training Group** 

For content or user issues contact

495-2228

**Ergo Team** 486-5818

Move or change in iob or equipment?

**EHS 58 Ergo Self** -Assess Refresher

When you move or have job or equip changes. your HR data or JHA will be updated and prompt you to take this brief version of Ergo Selfassessment for Computer Users

For more info contact Ergo Team Ergo@lbl.gov 486-5818

Ergo Eval or consultation for "at risk" conditions?

**Contact your Ergo Advocate or Safety** Coordinator

If complex ergo risk, they will bump it up to...

**Ergo Team** 

For Office/Computer settings: Mike White at 486-5818

For Labs, Material Handling or Trades: Ira Janowitz at 486-6071

For more info contact Ergo Team Ergo@lbl.gov 486-5818

Work-related **Discomfort** or Injury?

**Notify your** supervisor

**Contact Health** Services, B 26 486-6266

**Ergo Evaluation** Request

A-Z Index>>Ergo Eval Request, log in & select Request My Eval

For more info contact Ergo Team Ergo@lbl.gov 486-5818

Need ergo furniture or equipment?

Yes

**Ergonomics Products Catalog** 

Go to A-Z Index and search Ergo **Product Catalog** 

Contact Ergo Display room to schedule appointment to test ergo equipment or for chair fitting at Bldg. 75B Room 110c

For more info contact Ergo Tech **Jayson Martin** Ergo@lbl.gov 486-6848

Need techniques to improve ergo?

1 Min 4 Safety slides

Go to EH&S Division website

- >>EHS Quick Links
- >>1 Minute 4 Safety: topics include
- Laptop ergonomics
- Keyboard & Mouse techniques
- Workload hazard controls
- Lab ergonomics
- -, Ergo of lifting

For more info contact Ergo Team Ergo@lbl.gov 486-5818



## Ergo Guidelines for Office & Computer Work



What are the ergonomics	What do you do to avoid these hazards?	What resources are available
hazards of your job?	nazarus?	to you when you need help?
Repetitive keying & mousing	<ul> <li>Take breaks often, at least 5 min./hour</li> <li>If DISCOMFORT, contact your</li> <li>Supervisor</li> <li>Use break reminder software</li> <li>Use keyboard shortcuts &amp; macros</li> </ul>	<ul> <li>☑ Pub 3000 Chapter 17 &gt;&gt; Section 17.9.8 Office Ergonomics</li> <li>☑ RSIGuard break reminder software &gt;&gt; A-Z Index</li> <li>☑ Request Ergonomics Eval &gt;&gt; A-Z Index</li> <li>☑ Health Services clinic &gt;&gt; Bldg 26 &gt;&gt; Phone 486-5321</li> </ul>
Repetitive mouse clicking/ dragging	Don't click+drag with the same hand     -Use 2 mice (right + left)     -Use keyboard shortcuts     Alternate mouse use between hands	<ul> <li>☑ 1 Minute 4 Safety &gt;&gt; EH&amp;S Website &gt;&gt; Quick Links &gt;&gt; <ul> <li>Keyboard Shortcuts</li> <li>Tips to tame your mouse</li> </ul> </li> <li>☑ Ergo Display Room &gt;&gt; Bldg 75B &gt;&gt; test alternate mice</li> </ul>
Awkward postures at computer: • Phone cradling bet. ear & shoulder • Wrists bent up/down/to the side • Extended reaching to mouse • Prolonged stationary posture	<ul> <li>Adjust workstation/chair</li> <li>Use headset or speakerphone</li> <li>Keep wrists straight at key/mouse</li> <li>Keep mouse close/use forearm support</li> <li>Sit with foot and low back support</li> <li>Get up every hour and walk 4-5 min.</li> </ul>	<ul> <li>☑ Ergo Self-assessment for Computer Users (EHS59)</li> <li>☑ 1 Minute 4 Safety &gt;&gt; EH&amp;S Website &gt;&gt; Quick Links &gt;&gt;         <ul> <li>Keyboard &amp; Mousing Techniques</li> <li>Monitor Height Adjustment Guidelines</li> </ul> </li> <li>☑ Ergo Team support &gt;&gt; Contact x5818 or ergo@lbl.gov</li> </ul>
Heavy workload/spikes in workload	<ul> <li>Discuss workload w/ supervisor</li> <li>Anticipate workload spikes &amp; plan ahead</li> <li>Take breaks at least 5 min. every hour; change activities over the day</li> </ul>	<ul><li>☑ 1 Minute 4 Safety &gt;&gt; EH&amp;S Website &gt;&gt; Quick Links &gt;&gt;</li></ul>
Lifting/moving heavy objects	<ul> <li>Don't lift any object over 50 lbs.</li> <li>Get help for any item that exceeds your lifting ability, regardless of weight</li> <li>Use good body mechanics for any lift</li> <li>Use mechanical lift or cart for heavy or frequent lifts or moves</li> </ul>	<ul> <li>☑ WorkSmart training (EHS62)- body mechanics for lifting</li> <li>☑ 1 Minute 4 Safety &gt;&gt; EH&amp;S Website &gt;&gt; Quick Links &gt;&gt;         <ul> <li>Safety Tips for Moving Your Office</li> </ul> </li> <li>☑ Facilities Work Request Center (Move and Transport)</li> </ul>



## Ergo Guidelines for Science Laboratories



What are the ergonomics hazards of your job?	What do you do to avoid these hazards?	What resources are available to you when you need help?
Repetitive pipette use	Take 5-minute rest break every 20 minutes of pipetting Alternate or use both hands to pipette Use electronic pipettes where possible Find best pipette for job: comfortable grip, low weight & force Stand when working at higher surfaces/equipment; sit when working at lower surfaces Use forearm rest to reduce load on shoulders If DISCOMFORT, contact Supervisor & Request Ergo Eval	<ul> <li>☑ 1 Minute 4 Safety &gt;&gt; EH&amp;S Website &gt;&gt; Quick Links &gt;&gt;         <ul> <li>Pipette Ergonomics 1 and 2</li> <li>☑ Contact Ergo Team support &gt;&gt; Phone x5818 or ergo@lbl.gov for Lab Ergo Training</li> <li>☑ Ergo Display Room &gt;&gt; Bldg 75B &gt;&gt; test alternate pipettes</li> <li>☑ Request Ergonomics Eval &gt;&gt; A-Z Index</li> <li>☑ Health Services clinic &gt;&gt; Bldg 26 &gt;&gt; Phone 486-5321</li> </ul> </li> </ul>
Repetitive/forceful hand tasks	Find best tool for the job: good fit in hand; low weight & force     Use full hand grip vs. pinch grip     Alternate or use both hands     Adjust chair & work bench layout to avoid long reaches and awkward positions	<ul> <li>✓ 1 Minute 4 Safety &gt;&gt; EH&amp;S Website &gt;&gt; Quick Links &gt;&gt;         <ul> <li>Lab Workstation Ergonomics</li> <li>✓ Pub 3000 Chapter 17 &gt;&gt; Section 17.9.11 Ergonomics Principles</li> <li>&gt;&gt; Section 17.9.13 Hand Tools</li> </ul> </li> </ul>
Awkward postures at lab bench, hood or microscope  • Prolonged standing  • Forward head/neck and trunk/bending  • Head/neck bending at microscope  • Static and awkward positions	Use anti-fatigue floor mats for prolonged standing Alternate between sitting and standing throughout the day Try to change type of activity every 20 minutes Pad areas under forearms, elbows and/or surface edges Keep under-counter area clear to sit close to your work Use low profile tubes, containers and waste bins Stand when working at higher surfaces/equipment; sit when working at lower surfaces Adjust chair, bench or microscope to avoid awkward positions	<ul> <li>✓ 1 Minute 4 Safety &gt;&gt; EH&amp;S Website &gt;&gt; Quick Links &gt;&gt;         <ul> <li>Lab Workstation Ergonomics</li> <li>Lab and bench padding options</li> </ul> </li> <li>✓ Pub 3000 Chapter 17 &gt;&gt; Section 17.9.11 Ergonomics Principles &gt;&gt; Section 17.9.12 Standing Workstations</li> </ul>
Laptop use in labs	Use external keyboard/mouse and elevate the screen     Adjust chair or work surface and use footrest as needed to keep you neck and wrists relatively straight     Take stretch/walk break at least 5 min. every hour	☑ 1 Minute 4 Safety >> EH&S Website >> Quick Links >> - Computer Laptop Ergonomics ☑ RSIGuard break reminder software
Lifting/moving heavy objects	Don't lift any object over 50 lbs.     Get help for any item that exceeds your lifting ability regardless of weight     Use good body mechanics for any lift     Use mechanical lift or cart for heavy/frequent lifts or moves	<ul> <li>☑ WorkSmart training (EHS62)- Practical techniques for lifting</li> <li>☑ JHA authorization for lifting &gt; 50 lbs.</li> <li>☑ 1 Minute 4 Safety &gt;&gt; EH&amp;S Website &gt;&gt; Quick Links &gt;&gt;         <ul> <li>Safety Tips for Moving Your Office</li> </ul> </li> <li>Facilities Work Request Center (Moves, Transport and Rigging)</li> </ul>



## Ergo Guidelines for Material Handling



What are the ergonomics hazards of your job?	What do you do to avoid these hazards?	What resources are available to you when you need help?
Lifting/moving heavy objects	<ul> <li>Don't lift any object over 50 lbs. (See Pub 3000, Chapter 17 for more detail)</li> <li>Assess the situation: check the size weight of the load; will you have a clear view and path ahead?</li> <li>Get help for any item that exceeds your lifting ability regardless of the weight</li> <li>For heavy or bulky objects use a 2- or 3-person lift</li> <li>Bend at your knees and hips, keeping the inward curve in your back and lift with your legs</li> <li>Use mechanical lift, cart or assistive devices for frequent lifts/moves</li> <li>Be sure to wear protective footwear if there is a danger of foot injury</li> <li>Contact Work Request Center for lifting/ transporting large/heavy objects</li> </ul>	<ul> <li>☑ WorkSmart training (EHS62)- Practical techniques for lifting</li> <li>☑ JHA authorization for lifting &gt; 50 lbs.</li> <li>☑ 1 Minute 4 Safety &gt;&gt; EH&amp;S Website &gt;&gt; Quick Links &gt;&gt; Ergonomics of Lifting</li> <li>☑ Division lift team (if one exists)</li> <li>☑ Facilities Work Request Center (Moves, Transport and Riggers)</li> <li>☑ Pub 3000 Chapter 17 &gt;&gt; Section 17.9.11.2 Best Practices for Lifting</li> </ul>
Repetitive twisting/bending to handle materials	<ul> <li>Handle &amp; store frequently-lifted objects between hip &amp; waist height</li> <li>Handle heavy objects between knee &amp; shoulder height</li> <li>Slide materials on counters/conveyors vs. lifting/moving</li> <li>Hold objects close to your body, with feet shoulder-width apart</li> <li>Don't twist your spine: turn your whole body to move materials</li> <li>Use mechanical lifts/tables for raising objects from floor, especially if they are large or heavy</li> </ul>	<ul> <li>☑ WorkSmart training (EHS62)- Practical techniques for lifting</li> <li>☑ Pub 3000 Chapter 17 &gt;&gt; Section 17.9.11 Manual Material Handling</li> </ul>
Prolonged standing to process materials	Keep the upper body relatively upright     Stand on an anti-fatigue mat if it won't interfere with cart or doorway safety     Adjust the work to the appropriate height and slope when possible     Light duty work should be done at about elbow height     Work that involves lifting or downward force should be lower     Highly precise work should be closer to the eyes, with arms supported     Arrange tools/materials close so you can work with elbows relatively close to your sides and avoid forward bending to reach     Alternate between sitting and standing when possible	<ul> <li>☑ WorkSmart training (EHS62)- Practical techniques for lifting</li> <li>☑ Pub 3000 Chapter 17 &gt;&gt; Section 17.9.11 Manual Material Handling</li> </ul>